

## A B S T R A C T

A METHOD AND APPARATUS FOR MEASURING THE PROPAGATION TIME  
OF A SIGNAL, IN PARTICULAR AN ULTRASOUND SIGNAL

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10 A method of measuring the propagation time  $T_p$  of an ultrasound signal between two spaced-apart transducers, one constituted by an emitter and the other by a receiver, the emitter transducer being subjected to an excitation signal causing an ultrasound wave to be emitted towards the receiver transducer, said ultrasound wave causing the receiver transducer to output a receive signal, the method comprising the following steps:

15 · beginning a measurement of an intermediate propagation time  $T_{int}$  at the beginning of emitter transducer excitation;

· detecting the receive signal output by the receiver transducer and counting the oscillations in said receive signal;

20 · stopping the measurement of the intermediate propagation time  $T_{int}$  when an  $i^{th}$  oscillation is detected; and

· determining the propagation time  $T_p$  of the signal by taking the difference  $T_{int} - i \times T_e$ .

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Translation of the title and the abstract as they were when originally filed by the Applicant. No account has been taken of any changes that may have been made subsequently by the PCT Authorities acting ex officio, e.g. under PCT Rules 37.2, 38.2, and/or 48.3.